

REMARKS/ARGUMENTS

Claims 1-20 and 25 remain in the application. Claims 21-24 were previously cancelled. The amendments presented herein are in response to arguments under 35 U.S.C. 101 first raised in the Final Office Action. Further, the amendments provide clarification only, place the claims in better condition for consideration on appeal, and do not raise any need for further search. Accordingly, the amendments are properly enterable under 35 U.S.C. 1.116.

A. Rejections under 35 U.S.C. 101.

Claims 1-20 and 25 were rejected under 35 U.S.C. 101 as directed towards non-statutory subject matter. This rejection is respectfully traversed.

The Office Action states that the method claims 1-12 and 25 are not tangibly embodied. However, the Office's Examination Guidelines for Computer-Related Invention published in 1996 state that process claims are statutory "If a physical transformation occurs outside the computer, it is not necessary to claim the practical application. A disclosure that permits a skilled artisan to practice the claimed invention, *i.e.*, to put it to a practical use, is sufficient.

In the case of claim 1, an initiator for an integrated circuit is designed. The integrated circuit will be physically different depending on the execution of the steps defined in claim 1. Hence, to the extent claim 1 is practiced on a computer, it involves a transformation that occurs outside the computer and is, therefore, statutory subject matter. Although claim 1 is amended to clarify the physical transformation enabled by the invention, it is specifically noted that "it is not necessary to claim the practical application...." In other words, the amendments to claim 1 are provided to clarify the physical transformation, but it is believed that the physical transformation (*i.e.*, the act of making an integrated circuit) is not a necessary limitation of claim 1.

Claim 2, which depends from claim 1, is allowable for at least the same reasons as claim 1.

In the case of claim 3, a target for an integrated circuit is designed. The integrated circuit will be physically different depending on the execution of the steps defined in claim 3. To the extent claim 3 is practiced on a computer, it involves a transformation that occurs outside the computer and is, therefore, statutory subject matter. In the spirit of cooperation claim 3 is amended to clarify the physical transformation enabled by the invention, however, it is specifically noted that "it is not necessary to claim the practical application...." In other words, the amendments to claim 3 are provided to clarify the physical transformation, but it is believed that the physical transformation (i.e., the act of making an integrated circuit) is not a necessary limitation of claim 3.

Claim 4, which depends from claim 3, is allowable for at least the same reasons as claim 3.

Similarly, claims 5 and 7 call for methods of designing an interconnect, which is a tangible, physical object. Hence, whether or not the methods of claims 5 and 7 are practiced on a computer, the methods result in the transformation of a physical object (i.e., an interconnect). The designed interconnect will be physically different depending on the execution of the steps defined in claim 5 or claim 7. Hence, to the extent claim 5 or claim 7 is practiced on a computer, a transformation occurs outside the computer (i.e., in the interconnect) and is, therefore, statutory subject matter. Although claims 5 and 7 are amended to clarify the physical transformation enabled by the invention, it is specifically noted that the amendments to claim 5 and claim 7 are provided to clarify the physical transformation, but it is believed that the physical transformation (i.e., the act of making an interconnect) is not a necessary limitation of claim 5 or claim 7.

Claim 6 that depends from claim 5 and claim 8 that depends from claim 7 are allowable for at least the same reasons as claims 5 and 7.

Claims 9-12 calls for methods of designing an arbiter in an integrated circuit. An arbiter in an integrated circuit is a tangible, physical object. Hence,

whether or not the methods of claims 9-12 are practiced on a computer, the methods results in the transformation of a physical object (i.e., an arbiter in an integrated circuit). The designed integrated circuit will be physically different depending on the execution of the steps defined in claims 9-12. Hence, a transformation occurs outside the computer (i.e., in the integrated circuit) and, therefore, claims 9-12 comprise statutory subject matter. The amendments to claims 9-12 are provided to clarify the physical transformation but it is believed that the physical transformation (i.e., the act of making an integrated circuit) is not a necessary limitation of claims 9-12.

Claim 25 calls for a method for designing an imitator in an integrated circuit, which is a physical object. Accordingly, claim 25 is statutory subject matter. The clarifying amendments to claim 25 are made in the spirit of cooperation with the specific recognition of the Office guidelines that state that the physical transformation is not a necessary limitation of claim 25.

With respect to the rejection of claim 13-20, the amendments to claims 13 and 17 are believed to clarify that the model is embodied in a tangible media. Accordingly, it is respectfully requested that the rejection be withdrawn.

B. Response to Arguments.

The Office action asserts that claims 1-20 and 25 are not in the technological arts. This is a bald statement without support. The Office's Examination Guidelines for Computer-Related Invention direct one to the specification to determine whether the claims relate to improvements in the technological arts. The specification, and the claims themselves, teach that the invention relates to the design of integrated circuits, the design of macros used to manufacture integrated circuits, the design of modules within those macros used to manufacture integrated circuits. Integrated circuit manufacturing is, without question, within the technological arts.

The Office Action asserts that the invention of claims 1-12 and 25 have not practical application. In contrast, these methods define useful, practical

ways of designing an integrated circuit. Because the claims all involve methods that result in the physical transformation outside of a computer, they are believed to state a practical application according to the USPTO guidelines.

The Office action states that claims 1-12 and 25 call for data structures that are not embodied in computer readable media. This rejection is not relevant to claims 1-12 and 25 that describe methods, each of which are a set of activities that need not be embodied in a physical media. Method claims 1-12 and 25 do not call for data structures.

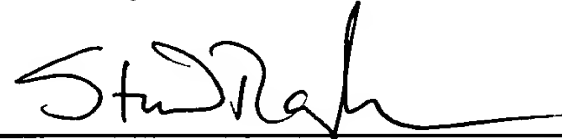
C. Conclusion.

In view of all of the above, claims 1-20 and 25 are now believed to be allowable and the case in condition for allowance which action is respectfully requested. Should the Examiner be of the opinion that a telephone conference would expedite the prosecution of this case, the Examiner is requested to contact Applicants' attorney at the telephone number listed below.

No fee is believed to be required by this response. Any fee deficiency associated with this submittal may be charged to Deposit Account No. 50-1123.

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Respectfully submitted,



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